

---

**Chapter 4: ArcView Basics**

---

## Overview

**Introduction** AV-SAVER has been created in order to facilitate easier and more consistent safety analysis. To do so, one thing it does is minimize the amount of interaction that the analyst must have with ArcView.

Nonetheless, there are a few things about ArcView that the user must know. It can also be very useful to know some of the basic ArcView procedures. This chapter is designed to meet those needs.

---

**Windows XP and ArcView** Windows XP causes a known error with ArcView when the Windows XP system is allowed to go into hibernation. In order to avoid crashing ArcView, please turn off your hibernation mode when using ArcView.

---

**In This Chapter** The following topics are discussed within this chapter of the AV-SAVER User's Guide:

Topic	See Page...
Overview	4-1
Project Legends and Layers	4-2
ArcView Buttons	4-3
Performing Some Standard Tasks in ArcView	4-4
Changing Stack Colors	4-7

---

---

**Chapter 4: ArcView Basics**

---

## Project Legends and Layers

### Introduction

It is critical to understand the use of layers within ArcView. Layers (also called *themes* and *coverages*) define the map and data of the project. A layer may be found in one of three states if it is located in the legend of a project, as described in the following table.



The graphic to the right illustrates the top of an ArcView legend, as well as the three available states.

	Description
Available	If a layer is shown on a legend, the data it represents is available to be displayed on the map or made active in order to perform a query or report of some sort. In the graphic above, “Story Townships” is available.
Visible	A layer that has been made visible is drawn on the map. It is shown in the legend with a checkmark. In the graphic above, “1999 Story Crashes” and “2000 Story Crashes” are both visible on the map.
Active	A layer that has been made active will be used in performing a query, creating a report, or some other ArcView procedure. It is shown in the legend with an embossed outline. In the graphic above, “2000 Story Crashes” is an active layer.

---

### Displaying a Layer

Each item listed in the ArcView legend is a layer. If a layer is shown with a checkbox to its left, then the information from that layer is visible on the map. If a layer is not checked, simply point your cursor to the box to the left of the layer and click. This makes the layer visible and draws the information on the map.

---

### The Order of the Layers

There is a precedence in terms of which layer is “on top” of any given map. The layers that have been made visible appear in the order they are listed in the legend.

Visible layers listed first in the legend are drawn on “top” of subsequent visible layers within the displayed map.

As an analogy, imagine an ArcView map as a set of overlapping opaque projector transparencies. Thus, the layers that are drawn “on top” can obscure the layers “below”. In the graphic above, the visible points representing crashes from the “1999 Story Crashes” may overlay visible points from the “2000 Story Crashes” layer.

---

---

**Chapter 4: ArcView Basics**








---

## ArcView Buttons

**Introduction**     The button bar provides quick access to many ArcView features. Most of those features can be found in the menu options.

---

**The Buttons**     The following table states what some of the most commonly used buttons do. Consult the previous descriptions of the options for more details.

Button	Description
	This activates the Identify option.
	This activates the Pan option.
	This allows you to save a project.
	This activates the zoom-in option.
	This activates the zoom-out option.
	This activates the measure option.
	This allows a region to be selected on the map by a click-and-drag process.

---

---

**Chapter 4: ArcView Basics**

---

## Performing Some Standard Tasks in ArcView

---

**Introduction**

You will find step-by-step instructions on how to perform some of the common tasks one might do with SAVER projects in ArcView. These include:

- Making a Layer Active
  - Selecting an Area
  - Identifying a Feature
  - Measuring
  - Changing Measurement Default
  - Panning
  - Zooming In
  - Zooming Out
- 

**Making a Layer Active**

Click anywhere on the layer's label within the ArcView legend. This will make the layer active. If you wish to make several layers active at once, complete the actions described below.


**NOTE:** Clicking on any layer without using the <**SHIFT**> key will cause all other active layers to become inactive.

Step	Action
1	Open a map within a project.
2	Click on the first layer you wish to make active. The layer's label in the legend is now surrounded by an embossed outline.
3	Hold the < <b>SHIFT</b> > key on your keyboard and click on the next layer you wish to make active. Each layer you activate within the legend becomes surrounded by an embossed outline.
4	Repeat step 2 until you have selected all of the layers you wish.

---

**Selecting an Area**

If you have not previously made the layer visible, the data represented within the layer is not shown on the map and cannot be selected. Refer to the following table:

Step	Action
1	Open a map within a project.
2	Click the <b>Select Feature</b>  button.
3	Draw a drag-and-click box on the map that contains the area of interest to you. You may wish to zoom in or zoom out in order to get a better view of the area of interest prior to drawing the box. The area selected turns red.

---


---

**Chapter 4: ArcView Basics**

---


**Identifying a Feature**

Refer to the following table:

Step	Action
1	Make the desired layer containing features of interest visible on the map.
2	Select this option using the  button. The cursor changes into the identify symbol.
3	Click on a map feature for which you want information. An <b>Identify Features</b> window appears with data about that feature from the theme table.
4	Close the <b>Identify Features</b> window when you are done.

**Measuring**

Refer to the following table:

Step	Action
1	Select this option using the  button.
2	Click on one spot on the map.
3	Hold the mouse button while you drag the cursor to another spot, creating a line.
4	Release the mouse button. A gray box with the distance appears in the lower left-hand corner of the map.

**Changing Measurement Default**

The default measurement is in miles. You may choose the units you wish to use by completing the following actions:

Step	Action
1	Click on the <b>View</b> main menu option. A menu window appears.
2	Select <b>Properties</b> . The <b>View Properties</b> window appears.
3	You may change the entry in the “Distance Units” field to the desired measurement unit.
4	Click the <b>OK</b> button. The new unit is now set.

---


---

**Chapter 4: ArcView Basics**

---


**Panning**

Refer to the following table:

Step	Action
1	Select this option using the  button.
2	Place your cursor on a spot on the map.
3	Click and hold the right mouse button.
4	Drag the map into the desired position.


**Zooming In**

ArcView occasionally zooms an abnormal amount. Perform the following actions slowly in order to avoid this bug. Complete the following actions to zoom in:

Step	Action
1	Select this option using the  button. The cursor becomes a magnifying glass icon.
2	You may either: <ul style="list-style-type: none"><li>• Click on the map with the cursor. This centers the zoom in on that spot.</li><li>• Click-and-drag a box around the area you want to zoom-in on.</li></ul>
3	Continue to zoom in until you have reached the desired view.

**Zooming Out**

ArcView occasionally zooms an abnormal amount. Perform the following actions slowly in order to avoid this bug. Complete the following actions to zoom out:

Step	Action
1	Select this option using the  button. The cursor becomes a magnifying glass icon.
2	You may either: <ul style="list-style-type: none"><li>• Click on the map with the cursor. This centers the zoom out on that spot.</li><li>• Click-and-drag a box around the area you want to zoom out on.</li></ul>
3	Continue to zoom out until you have reached the desired view.

---

**Chapter 4: ArcView Basics**

---


## Changing Stack Colors

**Introduction** Stacks are a useful visual aid on a map. However, if you have selected several parameters, you may wish to change the stack colors in order to better differentiate them on the map.

You could also change the line format, line size, and other parameters related to the appearance of the stack on the map, in a similar manner to the procedure outlined below for changing colors.

---

**Procedure** Complete the following actions to change stack colors:

Step	Action
1	Double-click on the stack layer you wish to modify. The <b>Legend Editor</b> window appears.
2	Double-click on the desired selection parameter. The <b>Pen Palette</b> window appears.
3	Click the  tab. Different color options appear.
4	Select the desired color.
5	Close the <b>Pen Palette</b> window.
6	Click the Apply button on the <b>Legend Editor</b> window. The map is redrawn with the new color applied to the chosen stacking parameter.
7	Close the <b>Legend Editor</b> window when you are finished editing the appearance of the stack parameters.

---